

REMARKS

Claims 1-42 remain pending in this application.

The Examiner rejected claims 1-32 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,734,712 (*Randahl*) in view of U.S. Patent No. 5,333,194 (*Caesar*). Applicant respectfully traverses this rejection.

Applicant respectfully asserts that *Randahl*, in combination with *Caesar*, does not disclose or make obvious all of the elements of claim 1 of the present invention. The Examiner points to the measuring resistances, R2 and R4, of Figure 1 in *Randahl* to read upon the first sensing circuitry and the second sensing circuitry. However, Applicant respectfully asserts that R2 and R4 are measuring resistances that are coupled to the differential terminals of the subscriber line. In contrast, the first sensing circuitry called for by claim 1 of the present invention is adapted to sense a circuit on the subscriber line, whereas the second sensing circuitry is adapted to sense a current in a portion of the downstream signal. By the Examiner's own admission, *Randahl* fails to teach a balancing network, and, therefore, the second sensing circuitry is necessarily not taught or made obvious by *Randahl*, as asserted by the Examiner for various reasons. For example, claim 1 calls for the second sensing circuitry adapted to sense a current in the portion of the downstream signal that passes through the balancing network. Since, as admitted by the Examiner, *Randahl* does not disclose a balancing network, and that the second sensing circuitry is adapted to sense a portion of a signal through the balancing network, it necessarily follows that *Randahl* does not disclose the second sensing circuitry as called for by claim 1.

Furthermore, as described above, the first sensing circuitry is adapted to sense the current on the subscriber line, whereas the second sensing circuitry is adapted to sense the current in a portion of the downstream signal. This is not the case in the disclosure of *Randahl* as described above, since the measuring resistances R2 and R4 are merely differential measuring resistances of an inverting input of amplifier A and amplifier B that are connected to the subscriber line. Wherein the first and second sensing circuitry are respectively adapted to sense a signal on the subscriber line and a downstream signal, which is not disclosed by *Randahl* or *Caesar*. Therefore, various elements of claim 1 are not disclosed or made obvious by *Randahl*, and these deficits are not made up for by *Caesar*, which is described in further detail below.

Additionally, Applicant respectfully asserts that *Randahl* does not disclose the upstream driver adapted to subtract the second voltage from the first voltage relating to the first sensing circuitry and the second sensing circuitry of claim 1. Since the second voltage is generated by the second sensing circuitry that senses the downstream signal passing through the balancing network, which is not disclosed or made obvious by *Randahl*, there is no disclosure of subtraction of the first and second voltages, as called for by claim 1 of the present invention.

Furthermore, *Randahl* does not disclose eliminating the first voltage signal component from the second voltage using the differential amplifiers, as asserted by the Examiner. The differential amplifier 1 in *Randahl* merely performs conditioning of the subscriber line signal and does not perform any subtraction of the voltages resulting from the first and second sensing circuitries as called for by claim 1 of the present invention. Therefore, even adding a balancing network, which the Examiner asserts is provided by *Caesar*, to the disclosure of *Randahl* would

not make obvious all of the elements of claim 1 of the present invention. This is true because the Examiner relies on *Randahl* to disclose or make obvious the first and second circuitry and the upstream driver for performing a subtraction of the second voltage from the first voltage, so that the Examiner can provide the missing element balancing network from *Caesar*. However, as described above, the upstream driver and the first and second sensing circuitries are not disclosed by *Randahl*; therefore, adding a balancing network from *Caesar* would not make up for this deficit. For at least this reason, the combination of *Randahl* and *Caesar* does not disclose all of the elements of claim 1 of the present invention.

Additionally, Applicant respectfully asserts that *Randahl* is directed to performing off-hook detection in the subscriber line interface circuit and providing an off-hook indication to a processor, depending upon whether a time at which a signal is generated exceeds a predetermined time value. *Randahl* provides no motivation to combine its disclosure with *Caesar* to perform an echo canceling process as provided by the present invention. Furthermore, *Caesar* merely provides a balance network for the purposes of adjusting the impedance of the telephone network, whereas the balancing network of claim 1 is adapted to receive at least a portion of the downstream signal, which is used by the second sensing circuitry to use the downstream signal passing through the balancing network to generate a second voltage from which the first voltage is subtracted. The use of the balance network in *Caesar* also would not motivate one of skill in the art to combine it with *Randahl* to perform an echo cancellation. Therefore, one of ordinary skill in the art would not be motivated to combine *Randahl* and *Caesar* to perform the echo cancellation as called for by claim 1 of the present invention. However, as described above, even combining *Randahl* and *Caesar*, the first sensing circuitry

and the second sensing circuitry along with the upstream driver subtracting the second voltage from the first voltage in light of the balancing network is not made obvious by *Randahl*, *Caesar*, or their combination. Therefore, one of ordinary skill would not combine *Randahl* and *Caesar* to make obvious all of the elements of the claims of the present invention. Additionally, even if improper hindsight were used to combine *Randahl* and *Caesar*, all of the elements of claim 1 would still not be disclosed or made obvious for at least the reasons cited above.

Additionally, claim 12 calls for a line card, which comprises a subscriber line interface circuit that calls for the first sensing circuitry, the second sensing circuitry, and the upstream driver are similar to claim 1, and therefore, these elements are not taught, disclosed, or made obvious by *Randahl*, *Caesar*, or their combination, for at least the reasons described above. Additionally, claim 21 provides a method claim that calls for sensing a current to generate a first voltage, sensing a current in a portion of the downstream signal passing through a balancing network to generate a second voltage and subtracting the second voltage from the first voltage, which is also not taught, disclosed, or made obvious by *Randahl*, *Caesar*, or their combination, for at least the reasons cited above.

Therefore, independent claims 1, 12, and 21, are not disclosed or made obvious by *Randahl*, *Caesar*, or their combination, and, therefore, are allowable for at least the reasons cited above. Applicant acknowledges and appreciates that the Examiner allowed claims 33-42. However, in light of the arguments provided herein, Applicant respectfully asserts that claims 1-32 are also allowable.

Independent claims 1, 12, and 21, are allowable for at least the reasons cited above. Additionally, dependent claims 2-11, 13-20, and 22-32, which depend from independent claims 1, 12, and 21, respectively, are also allowable for at least the reasons cited above.

Reconsideration of the present application is respectfully requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Houston, Texas telephone number (713) 934-4069 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,

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